STORM DATA





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I Ray Hoxet ACTING DIRECTOR

NATIONAL CLIMATIC DATA CENTER

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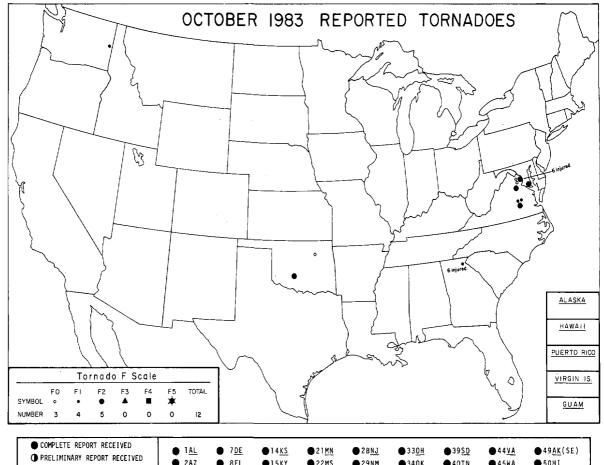
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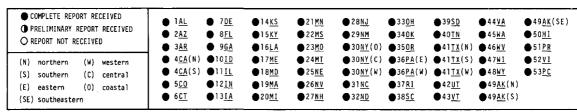
Cover: A farm near Guthrie, Oklahoma resembles an island as it is surrounded by flood water at midday on October 21, 1983 (see HEAVY RAINS and FLOODING, page 5). ---Photo by Lewis Jarrett, The Tulsa Tribune.

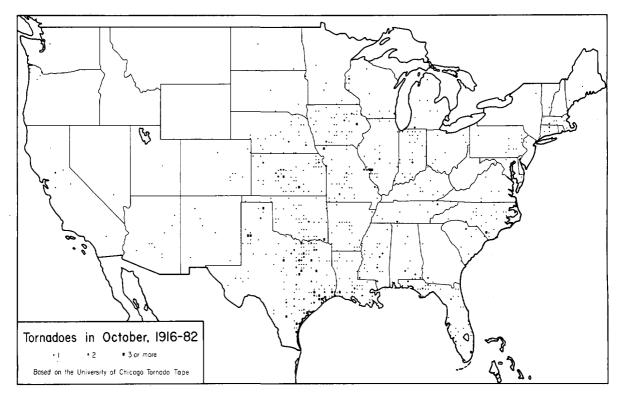
NOTE: The section on Outstanding Storms of the Month is prepared by Professor T. Theodore Fujita, editor, and Duane J. Stiegler, associate editor, University of Chicago. The narrative descriptions of Storms by State and Summaries of Hurricanes and Tropical Storms are prepared by the National Weather Service. The National Climatic Data Center compiles the statistics on deaths, injuries, and damage. This publication contains our best information on Storms, but, due to the difficulties inherent in collection of this type of data, it is not all-inclusive. Late reports and corrections will be carried quarterly.

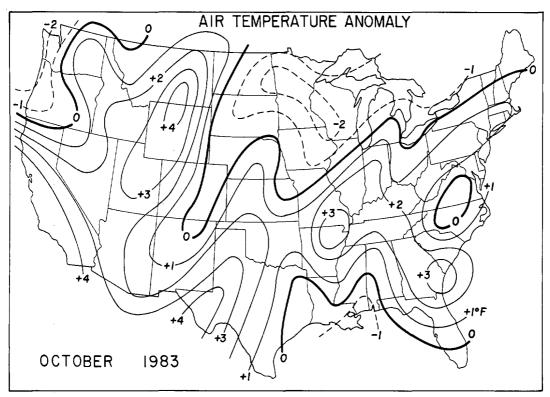
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OUTSTANDING STORMS OF THE MONTH





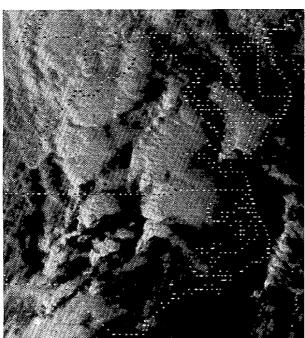




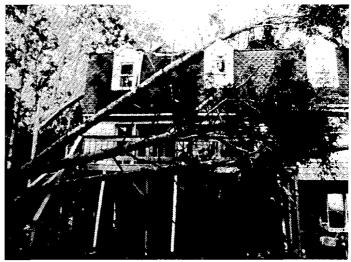
--- Data base from NOAA/USDA Joint Agricultural Weather Facility.

1. TORNADOES in VIRGINIA and MARYLAND on October 13, 1983

Of only 12 tornadoes nationwide during October, 8 occurred in Virginia and Maryland as a single outbreak between 1600 and 2000 EST on October 13th. 7 of the tornadoes occurred in Virginia (3 F2, 2 F1 and 2 F0) and the last, an F2, was in Maryland (see Tornado Map, page 3).

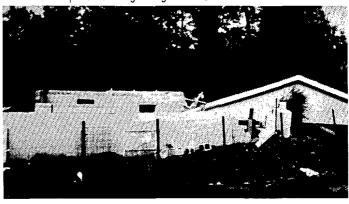


Visible GOES East satellite photo shows the developing tornadic storms over Virginia at 1530 EST (2030 GMT) on October 13th. ---Photo from NESDIS.

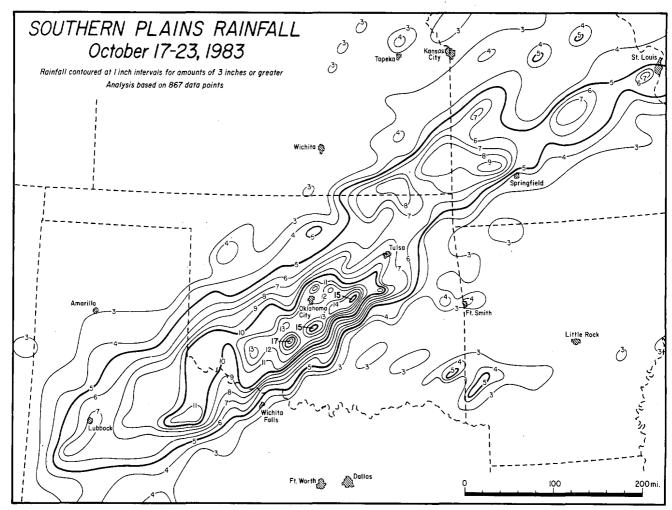


A house (above) which suffered damage from falling trees and a garage (below) which had its roof lifted off by a tornado at Lake of the Woods in Orange County, Virginia.

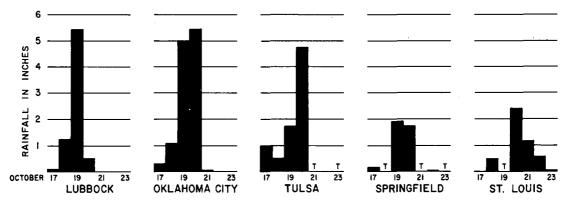
---Both photos by Roy Britt.



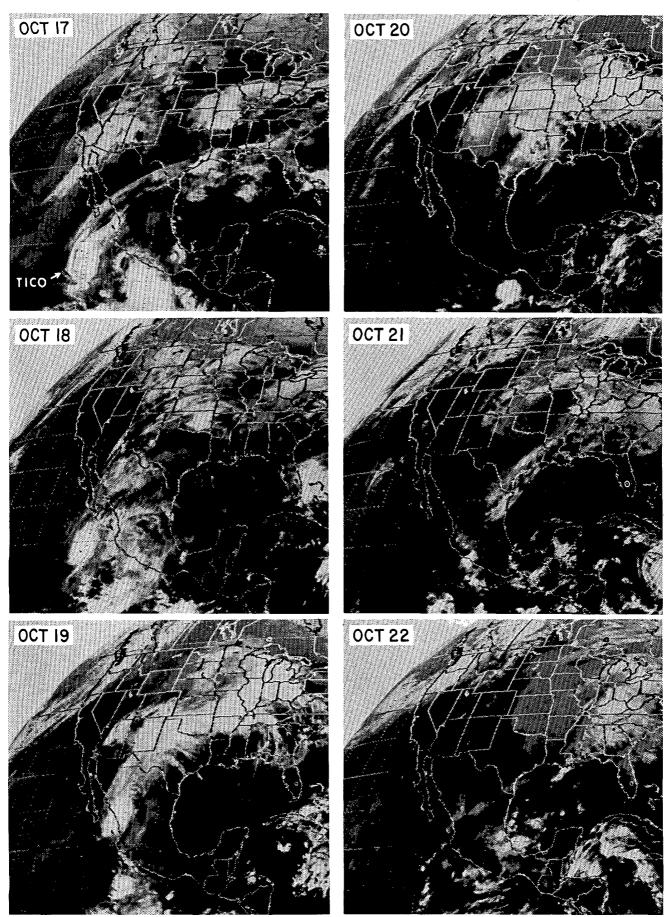
From October 17th to the 23rd, a major rain and flood event took place in the Southern Plains states when the remnants of Hurricane TICO moved northeast from Mexico into the midsection of the U.S. (see Hurricane map, top of page 12). Over 10 inches of rain fell in central and southwestern Oklahoma and a small portion of Texas, with a maximum of 17 inches having fallen just south of Chickasha, OK. Although there was flash flooding and most areas became quite soggy, massive flooding was, for the most part, prevented by flood control reservoirs which were drained by a summer-long drought.



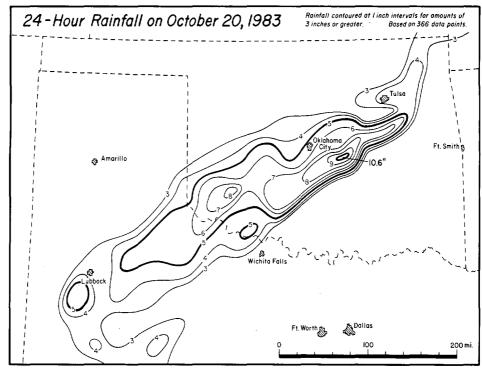
Total storm rainfall for the period October 17-23, 1983. --- Mapping by the University of Chicago from data supplied by the National Climatic Data Center and NWSFOs at Little Rock, AR; Topeka, KS; St. Louis, MO; Oklahoma City, OK; Ft. Worth, TX; and Lubbock, TX.



A graphical representation of the daily rainfall for five major cities in the region shows that, with the exception of St. Louis, most of the rain fell on the 19th and 20th of October.



A sequence of GOES East satellite, infrared photos shows the rain-producing storm system at 1000 CST (1600 GMT) on each day from October 17th to the 22nd. Hurricane TICO came ashore in Mexico on October 19th and, thereafter, became a major midlatitude cyclone. ---Photos from NESDIS.



24-hour rainfall analysis for October 20th. The maximum 24-hour total, 10.6 inches, was registered at Shawnee, Oklahoma. The analysis is somewhat smoothed since some stations report amounts for 0700 to 0700 while others use the period, midnight to midnight. ---Mapping by the University of Chicago. Data supplied by Eldon Beard, NWSFO, Oklahoma City, OK; Gifford Ely, Jr., NWSFO, Ft. Worth TX; A. Casteneda, NWSFO, Lubbock, TX; and Jay Ziemianski, NCDC, Asheville, NC.

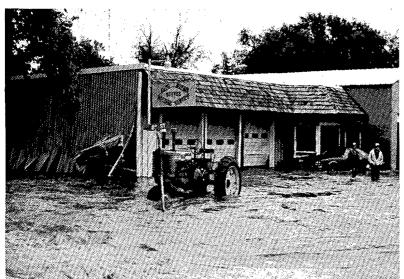


An aerial view of Guthrie, Oklahoma, one of the worst struck towns by the flash flooding which resulted from the heavy rains. Guthrie lies about 30 miles north of Oklahoma City. ---Photo by Lewis Jarrett, The Tulsa Tribune.

- 7 -



A flooded section of Guthrie on October 21st, the day after the nearby Cottonwood Creek had crested at 29.6 feet (9.6 feet above flood stage). ---Photo by Lewis Jarrett, The Tulsa Tribune.



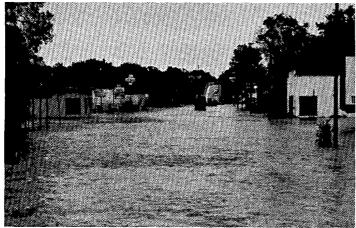
The force of the fast-flowing waters pushed in the Firefighters and National Guardsdoors and ripped apart the sheet metal wall of this auto repair in Guthrie. One man drowned in Guthrie when he was swept from a car onto which he believed to have been missing. was holding.



men conduct a house-by-house search in Guthrie for 3 persons Here, waters had already receded two to three feet.

---Both photos by Cherie Hamilton, The Guthrie Daily Leader.

HEAVY RAIN and FLOODING in the SOUTHERN PLAINS ---- continued



Looking east down a portion of the main east- An overturned car and motorcycle stand west street in Guthrie after the water had somewhat receded on October 21st.

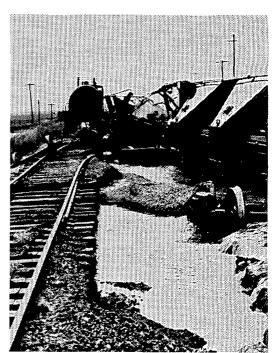


as reminders of the swift-moving waters. Many vehicles in Guthrie were found blocks away from where they were parked.

---Both photos by Cherie Hamilton, The Guthrie Daily Leader.

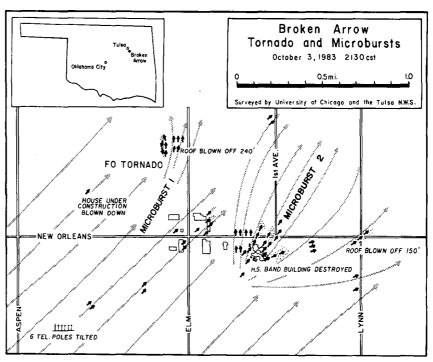


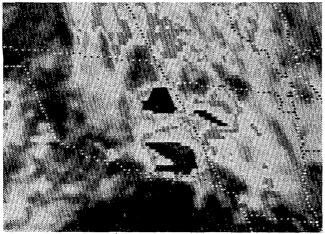
LEFT: Motor boats and Oklahoma Highway Patrol cars meet where a bridge embankment becomes submerged by the flood waters in Guthrie. ---Photo by Lewis Jarrett, The Tulsa Tribune.

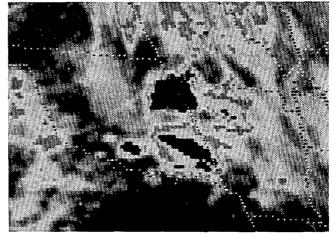


A train wreck which resulted when rains carried off ballast from a roadbed near Altus in extreme southwest Oklahoma. Three cars totally derailed and several others buckled on the tracks as the train crossed a spot where flowing water had cut beneath the tracks. ---Photo by Rick Combs, The Altus Times.

During the evening of October 3rd, a rapidly developing thunderstorm produced two microbursts and a small tornado in Broken Arrow, OK near Tulsa. The microburst winds damaged the South Intermediate High School, completely destroying the band building, unroofed other structures, downed power poles, and caused minor damage to numerous other buildings. Total damage was estimated at \$1 million. Surveys of the damage area were conducted by the Tulsa NWSO, and Brian Waranauskas and James Partacz of the University of Chicago.







Infrared GOES West satellite images show the rapidly growing anvil of the microburst-producing storm in northeastern Oklahoma at 2115 CST (left) and 2145 CST (right) on October 3rd. ---Photos from NESDIS.



A prefab classroom building at the South Intermediate H.S. that was blown 8 feet off its foundation. ---Photo by Dick Grant, The Tulsa Tribune.



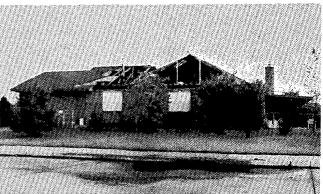
A cinder block garage with one wall partially collapsed. The sheet metal roof was blown 150 feet, landing near the intersection of Lynn and New Orleans Roads.
---Photo by Brian Waranauskas, U of C.



A clean-up crew salvages band equipment from the destroyed band building at South Intermediate H.S. The adjacent building, only 10 feet away, had only light damage. ---Photo by Dick Grant, The Tulsa Tribune.

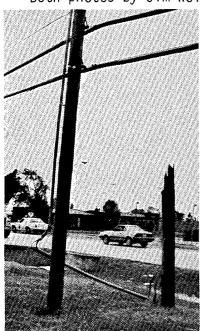


Band instruments and debris strewn from the destroyed building. Total damage to the school was estimated at \$500,000.



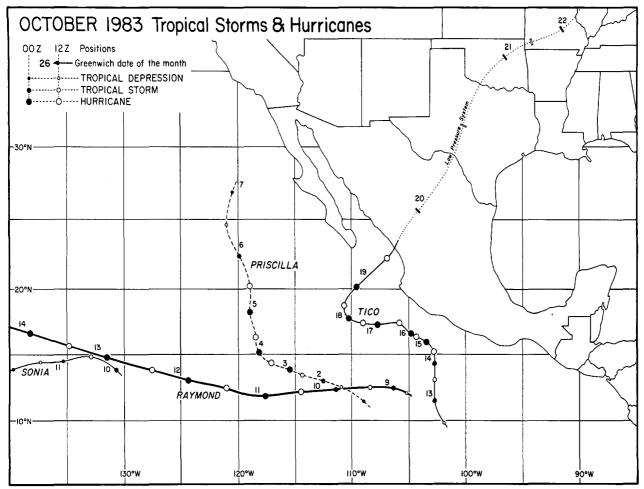
The damaged second floor of a home at the starting point of the small tornado. The upper floor was under construction at the time

--- Both photos by Jim Wolfe, The Tulsa World.

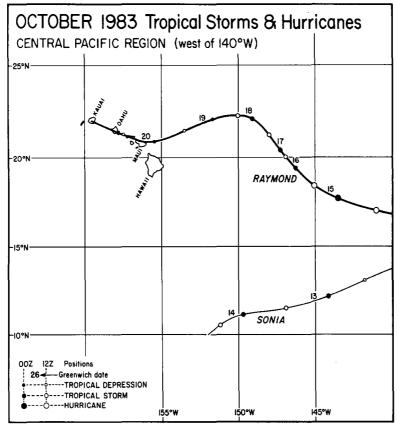




LEFT: A power pole remains standing after having been snapped off and moved several feet away by the microburst winds. ---Photo by Jim Wolfe, The Tulsa World. RIGHT: One of 10 power poles that were toppled across the road from the high school. ---Photo by Dick Grant, The Tulsa Tribune.



---Best track data from NWSFO, San Francisco, CA.



---Best track data from NWSFO, Honolulu, HI.

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PLACE	TIME - LOCAL STANDARD (MILLES) WIDTH OF PATH (TAROS) WIDTH OF PATH (TAROS) WIDTH OF PATH (TAROS) WIDTH OF PATH (TAROS) CROPS C	PLACE	TIME - LOCAL STANDARD LENGTH OF PATH (VARDS) WIDTH OF PATH (VARDS) WIDTH OF PATH (VARDS) WIDTH OF PATH (VARDS) CROPS CRO
1 ALABAMA		7 DELAWARE	
² ARIZONA		8 FLORIDA	
Tucson, Pima County	19 1830MST 0 0 4 0 Thunderstorm, During a severe thunderstorm, 5/8 inch diameter Hail hail fell over parts of the city with only minor	Pierson, Volusia County	08 0400EST 0 0 4 0 Lightning Lightning started insulation on fire in an attic,
Prescott, Yavapai County	damage. 24 1605MST 0 0 0 0 Thunderstorm Wind gusted to 58 mph during a severe thunder- Wind	Lake Wales, Polk County	08 0430EST 0 0 4 0 Thunderstorm Winds
	storm at Prescott Airport with no damage re- ported.	Boca Raton,	Wind damage to mobile homes, cars hit by debris, trees uprooted, canopy blown down, traffic lights blown down, 11 0700EST - 0 0 4 0 Lightning
3 ARKANSAS		Palm Beach County	Lightning started a fire in a home.
Boone County	04 .0730CST 0 0 3 - Lightning Lightning started an attic fire at a Harrison residence.	Eglin Air Force Base, Okaloosa County	12 0430EST 0 12 2 0 Lightning Lightning struck a generator which exploded and injured 7 men and 5 other men were injured by nearby lightning strikes.
Craighead County	04 1330CST 0 0 3 - Winds Strong winds from a thunderstorm damaged the aluminum facades of two businesses in Jonesboro.	Destin, Okaloosa County	12 051EST 0 0 5 0 Lightning Lightning started a fire in a store.
Sharp County	04 1815CST 0 0 - Hail Hail ranging in size from 3/4 - 1 inch was reported by the cooperative observer at Evening Shado.	Monticello, Jefferson County	12 0700EST 0 0 2 0 Thunderstorm winds
Clay County	11 1940CST 0 0 4 - Wind Strong thunderstorm winds knocked down trees and power lines in the Hall and Gravel Hill communi- ties. Also, the wind destroyed five barns, and a carport. One of the trees opened a large hole	Port St. Joe, Gulf County	Wind damaged a patio and blew down 50 trees. 13 0030EST 0 0 2 0 Lightning Lightning started a fire in a business.
Pulaski County	in the wall of a residence. 11 2200CST 0 0 3 - Winds Thunderstorm winds knocked down trees, tree	Royal Palm Beach, Palm Beach County	16 1300EST 0 1 0 0 Lightning Lightning struck and injured a golfer.
Independence County	limbs and utility poles in Little Rock. 12 0044CST 0 0 4 - Lightning A Walnut Grove residence was destroyed by fire after a lightning strike.	9 GEORGIA	
Jefferson County	17 1450CST 0 0 3 - Lightning Lightning struck the roof of a Pine Bluff church, opening a 2-foot hole. No fire ensued.	Habersham and Rabun Counties	12 2330- 15 100 0 6 5 0 Tornado (F1) 0000EST
Drew County	17 160UCST 0 0 4 ? Severe thunder- A strong thunderstorm moved east through the northern portion of the county across Ozment's Bluff and Selma. Lightning struck a tree and killed 6 cows. Large hail was also reported.		and moved northeast across the Rabun Beach area in Rabun County. The tornado destroyed three mobile homes in Habersham County, causing minor injuries to 6 people. At least 11 other homes were damaged and dozens of trees were snapped off or blown down. Several power lines were downed.
		Oconee County	13 0000 EST 0 0 4 0 Wind Thunderstorm winds destroyed a mobile home 5 miles south of Watkinsville. Several other homes were damaged and a large
4 CALIFORNIA	A, Northern —— HONE REPORTED	Gilmer County	number of trees were downed. 13 0520EST
4 CALIFORNI	A, Southern MONE REPORTED	,	Thunderstorm winds downed several apple trees in the eastern part of the county. The storm caused minor roof damage to two houses and blew the back porch off one house. A few power lines were downed.
5 COLORADO		Madison County	13 0930EST 0 0 4 0 Wind
Northeast Plains	2 1700-1800 MST 0 0 0 3 High winds Heavy thunderstorms produced wind gusts estimated at 90 to 100 mph in places. Some corn suffered minor damage south of Fort Morgan.		Thunderstorm winds damaged the sheet metal roof of a barn just northeast of Ila. Several pine trees were broken off about 30-40 feet above the ground. The storm also downed several trees near Golbert; one of the trees fell on a car. Roof damage to one home was also reported.
Northern Mountains	14 0 0 0 0 Snow Up to 8 inches of snow fell in the mountains northwest of Eagle.	Laurens County	23 1415EST 0 0 4 0 Wind Thunderstorm winds destroyed a mobile home in east Dublin. No
6 CONNECTIO	eut		one was in the building when the storm struck.
Southwest Portion	5 Early 0 0 0 0 Thunderstorm Winds Evening & Brief Heavy Rain	10 IDAHO	NONE REPORTED
	A fast-moving cold front caused locally heavy thunderstorms and coastal areas reported minor flooding and scattered power outages. Wind gusts reached 45 MPH in Norwalk.	11 ILLINOIS —	NONE REPORTED
Danbury, Bridgeport Area	12 Afternoon		
	Danbury, 2.43 inches of rain fell during the period. The entire town of Monroe, 4,254 electric customers, lost service. In Bridgeport, flooding was reported in all low lying areas and manhole covers were blown off by the water pressure in the drainage system.		<i>,</i>

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12 INDIANA										16 LOUISIANA	_			NONE	REPO	RTED			
3 N Patoka Gibson County	Win	2120EST ds estima erlines.	ted at 6	50 mile	0 es an	0 2 hour bl	ew de		Thunderstorms Winds ree limbs and	17 MAINE -		···-		NON	E REPO	ORTEC)		
Oatesville Pike County	1	2140EST to 70 mile	e an hou	ır wind	0 Is dow	0 2 wned tre	e lir		Thunderstorms Winds nd powerlines.	18 MARYLAND) ar	d D.C	: .						
13 IOWA Buena Vista County	10 Mr.	1330 CST and Mrs. s from La	Roy Sch	u l tz w their	0 ere d	l riving A ligi	3 their	0 autor	Lightning mobile about 3 t struck the car,	Northern	Sev nea Can spr ass the win	r the w roll, B read and sociated Middle nd guste oyed or	ndersteest bo altimo point with town-M d to n badly	orms torm undary o re, Harfo ed to a strong eyersvil ear 60 m damaged	e thro f Fred ord an likeli cold le are ph. Tr on se	ugh ericl d Ce hood fron as o ees v	k Count cil Cou of a f t. Dama f weste were up l farms	a begi yand nties. amily ge app rn Fre rooted . One	Wind, Lightning nning close to 6PM eastward through Damage was wide- of downbursts eared heaviest in derick County where and buildings de- farmstead reported
	them Afte home ing anot left four burn	in the car sitting only to that, the her flat, of the Cad burn holed inside	ar as ti in the discove y drove again B antens les in the ca	he lig car f r one home, on the na was the fl sing.	htning or about at when right a sco at ti Othe	g destrout 5 m e right hich tin t side orched l res with	oyed inute tire ne th of th orack h the	the C es, the es was ey for e car eet.	re" was between itizens Band Radio. ey decided to drive flat. After fix- und they had . The only thing The Schultzes 1 belting pieces no evidence of any Mr. Schultz was		ed by a r the nea gla	garage lightni an ridi vehicl r Thurm iss when wer line	destro	yed. Two sustain car was cenetrate young s blew ou	homes ning e s inju ed his people t a la sewher	in xtens red warm were	the Mey sive da when a . Elsew e sligh window.	ersvil mage. tree l here, tly in Consi	ick had its attach- le area were struck On nearby Route 40 imb smashed through at Lake Summit Camp jured by flying derable damage to y vehicles damaged
MMANICAC	unha								ered earaches	Leonardtown (5NE)	Sma ity sic too	of Hol ling fro uched do ver and	ado de lywood n thre wn at intens	veloped , in St e homes least the ified as	from a . Mary and up ree ti it mo	vio s Con root mes ved	unty, w ed or t It the into th	unders here i opped n cros e Broo	Tornado (F2) torm in the vicin- t took roofing and many trees as it sed the Patuxent mes Island commun-
14 KANSAS Mankato, Jewell	, 10	1745-			0	0	1	0	Hail					cinder with t					ed some more homes
County	A th	1900CST understor ty. Hail	m droppe stones :	3/4 in	ge ha ch in	il on th diamete	er fe	ntral	part of Jewell miles west of ankato at 1853CST.	19 MASSACHUS	SET	TS							
Russell and Osborne Counties	10	1900- 2000CST			0	0	1	0	Hail	Pittsfield and Adams	s 5	Evenin	g		0	0	0	0	Thunderstorm Winds
	Russ		ies. In	nch dia	mete				e and northern at Natoma at		Se a	veral la orief th	rge tr unders	ees were torm. S	blowr ome wi	dow res	n block were re	ing so ported	me roads during d down in Adams.
Kalvesta, Finney County	cove	red the g	m droppe round in		sofi	hail at Hodgeman	: Kal ı Cou	vesta nty w	Hail and also ith small hail.	Statewide	29 St tr	es and	mornin gusty branch	winds c es fell	across	pow	er line	s, Ir	Strong and Gusty Winds outages as some Easthampton,
Wakefield, Clay County	and	2230CST tning set its conte	fire to nts wer		ne in tal lo	Wakefio oss.		The I			cr	ushing a	car p	l on a n arked in aged by	the c	Irive	way. I	nart o n Word	of the roof and cester, a house
Ellsworth, Ellsworth County	Ligh	01000ST tning set resulting	fire to			n busine		n E11:		20 MICHIGAN									
Southeast Corner of Kansas	20 The upon to e Cher shor peak	Bourbon, ight inch okee Coun t time, b ed slight	f Hurric Neosho es were ties. S ut only ly above	, Monto measur Some sr minor e floor	gomery red in nall s floor d stag	y and Ci n most o streams ding re ge near	nauta of La left sulte the	uqua (bette their d. Ti Oklah	Heavy Rain, Flooding nes of rain Counties. Six Crawford and r banks for a ne Neosho River oma border. Water	Strait of Mackinac	St. Bri	1100 E injured Ignace.	by ro Gusts eral v	ofing bl up to 6 ehicles amage.	0 mph	on M	lackinac		Wind
	and	US 160 ne	ar Inder forced i	endeni the Par	ce foi rsons	r a time	e on t	Octob	in Labette County er 20. Flooded on the 20th.	Lake Superior, off Whitefish Point	Sma	150 0 E 11 boat er drown	swampe	d. One on	l an swa	o nmas	-	0 he	Wind and waves
	espe								te hail was te in the listed	21 MINNESOT	'A -			NO1	IE REP	ORTE	D		
15 KENTUCKY										22 MISSISSIPP	PI —				E REP	ORTE	D		
Statewide	22	0700- 2100EST			0	0	2	0	Heavy Rain Minor Flooding										
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PLACE	DATE TIME - LOCAL STANDARD	LENGTH OF I	WIDTH OF PATH (YARDS)	KILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM	PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF	WIDTH OF PATH (YARDS)	KILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM
23 MISSOURI									25 NEBRASKA	-								
LaClede	4 1240CST		diame			2 ?		Damaging Wind Large Hail	Clay County	Two	1812CS inch ha y Center	il was	reporte	0 d 6 mi		0 east-s		
Cedar	by wind dar 4 1326CS Hail to 3/4	age in	n Eldr	idge. O ter at	0 t Sto	0 C)	Large Hail	York County Lincoln County	0ne	1814CS and a h 1825CS ee quart	alfin T		0	orief O	ly aro	und Yo	Hail rk. Hail Lat Hershey.
LaClede	Wind damage of Lebanon	ed a fa	arm bu	ilding	g 8 m	iles r	nort		Nuckolls County		1840CS htning k		seven he					Lightning near Superior.
Phelps	Thunderston	m wind	is dow 2 mile	ned po s nort	ower th of	lines Elk F	rai		26 NEVADA									
Crawford	4 14050S' Wind damage in the east blew off a Winds were	ed tree tern po	ortion one mi	the Hu of th le nor	uzzah he co rth o	Foresounty a of Stee	st and	Damaging Wind	Tonopah, Nye County		1300PS		as sighte	0 ed by		0 SS obs		Funnel Cloud
Lawrence	4 1417CS	e inch	diame	ter wa	O as ac	compar	nie	Large Hail Damaging Wind	27 NEW HAM	PS⊦	IIRE –		— NON	E REPO	ORTED)		
Washington	by damagin was to tre 4 1430CS Several fa Highway W.	s and I rm bui Mode	power ldings rate h	lines O were	s. O dama	4 (aged no	0 ear	Damaging Wind	28 NEW JERSI	EY -			NON	E REPO	ORTEC)		
Jefferson	also repor		ar Pot		0	3	2	Damaging Wind Flooding	29 NEW MEXIC	0								
	Thundersto limbs and DeSoto. S reported i	a barn ome st	on th reet f	e outs Loodir	skirt ng Wa	ts of as als	0	nty.	Catron, Grant, and Hidalgo Counties	Heav days	s of Sepi	moved tember jor fl	across and ear	southw Ly Oct	este ober Gila	. Amo	Mexic unts o an Fra	Flood o during the las f up to 6 inches ncisco Rivers;
Ozark	4 1630CS Hail to ne at Tecumse windows an roofs were their back	ar bas h and d wind also	Caulfi shield damage	ield bi ls. A	was i reaki numb	report ing ma ber of	ny	Large Hail	30 NEW YORK	1							J,000.	
Bollinger	4 1820CS Trees and thundersto of Sedgewi over 60 mp	power rm win ckvill	ds jus	were o	downe th ar	nd eas	t	Damaging Wind	30 NEW YORK									
Barton	16 1600- 1630CS	r		0 (6	Large Hail Damaging Wind	Sylvan Beach Onieda County	A cout	tages and Camden,	nt with downer Lee Co	ed trees enter, B	. Als Iossva	s and	fected Taberg	/ rain were , Will	Cold Front s caused power the communities iamstown, and
	A hail sto County abo to Lamar d to crops (was also re farm build	it 7 m oing 1 soybear sporte	iles n .2 mil ns). S i alon	orthwe lion of catter g the	est o dolla red w way	of Libe ar dama vind da to se	era age ama vera	1	Little Falls	Sy1	lvan Bead 1630ES ghtning v	ch area	ns. All	are i	n On	ieda C	0	Lightning
Dade	several in marble size 16 1630-1700	ches d	eep an	d gene	erall	ly aron	und	Hail and Damaging Wind Heavy Rain	Eastern New York	An dan and	nage was d was cer	ke was report	ted. The 9 miles	quak NE of	e hi Blu	t 5.2 : e Mtn.	n New on the Lake.	Earthquake York. No major Richter Scale, On part of the 40 and 5:50 EST.
	The same some moved into many thousand as well as had to be a road grader	Dade (ands of some r scrape(County Cacre milo c l off	and d s of s rops. the hi	lestr soy b The ighwa	oyed eans hail ys wit	th	Heavy Rain	Ticonderoga Essex County	13 Hea	0000ES	T short	ed out a	0 115,0	0 100 v	0 olt po	0 verlin	Heavy Rain e. 20,000 perso sex Counties.
	a number of houses. We be near 90 as much as generally of in this sto	farm nd spe mph. 4 to 7 nly ma	build eds w Rainf inch rble	ings a ere es all am es. H or a l	and s stima nount Mail littl	ome ted to s were size w e bigg	o vas		Broome County Cortland County	Mir Flo	2030ES nor base poding w wned.	ment f	looding n	0 was re ea. S	port	ed in I	Broome	Flooding and Cortland Co and tree limbs
Greene	16 1830CS Thundersto house and Walnut Gro	r rm windiowned	d blew	0 0	a ch	, O nicken		Damaging Wind	Herkimer County Fulton County Montgomery County	Hig at tre	Griffis	measu s A.F. st sev	B. damag ere dama	ed sev ge was	veral in	build N.Clin	Airpo ings, ton, K	High Winds rt. and 42 MPH power lines and irkland, Deansbu
24 MONTANA	•		— NONE	REPORT	TED .				Schoharie County	28 Gu:	2200ES	T nds es si d e o	timated f Cobles	0 at 65 kill.	0 MPH Pow	5 tore t ver was	0 he roo also	High Winds f and siding off cut off to sever .

	NO. OF ESTIMATED		A I NO. OF ESTIMATED
PLACE	TIME - LOCAL STANDARD - LOCAL LENGTH OF PTH	PLACE	PATE STIME LOCAL STIME LOCAL WIDTH OF PATH STIMMEDI PATH OF STIME OF STIMMEDI PATH OF STIME PATH OF STIMMEDI PATH OF STIME OF STIMMEDI PATH OF STIME OF STIME OF STIMMEDI PATH O
30 NEW YORK	, Western	33 OHIO	
Jamestown, Chautauqua County	05 Afternoon 0 0 3 0 Wind The roof of a barn was blown away by strong winds.	3 S Wooster, Wayne County	13 1115EST 0 0 5 0 High Wind Thunderstorms with high winds crossed the county downing trees and utility lines. Three miles south of Wooster several camper trailers were overturned and destroyed.
Towns of Clayton and De Kalb in Jeffersor County		Stark County	13 1130 0 0 5 0 High Wind 1215EST Thunderstorm winds did extensive damage in Canton at 1130 AM. Several residences were damaged and trees and utility lines downed. Minor structural and tree damage occurred in Alliance at 1215PM.
Elmira, parts of Chemung, Steuben, Schuyler Counties	13 Evening 0 0 4 0 Wind & Rain Heavy thunderstorms were responsible for brief street floodings. Strong winds severed power lines. Thousands of homes were blacked out for a few hours.	Dover, Tuscarawas County	13 1130EST 0 0 5 0 High Wind Thunderstorm winds downed over 100 trees and damaged buildings in the Dover area.
Buffalo, Niagara Falls, Lockport, & other parts of	14 Morning 0 0 5 0 Wind Gale-force winds with gusts up to 60 MPH walloped the area. It uprooted many trees and knocked down power lines. Windows of	Columbiana County	13 1200EST 0 0 5 0 High Wind Thunderstorm winds as high as 70 MPH downed trees and lines and caused minor structural damage.
Erie and Niagara Counties	the Niagara Falls Rainbow Center were blown out. Thousands of homes had electrical interruption. At the Buffalo Small Boat Harbor, it tossed and damaged several boats. In Buffalo, a few homes were damaged and a trailer was upended. In Lockport, power lines were severed.	Ashtabula County	13 1210EST - O l 5 O High Wind Thunderstorm winds downed trees and lines and damaged several buildings. Damage was especially heavy in Ashtabula and Jeffers An Ashtabula man was slightly injured when a tree fell on his ca
Watertown and other parts of Jefferson County	14 Evening 0 0 4 0 Kind Winds gusting over 40 MPH downed many tall trees and severed electrical lines. Thousands were without electricity for up to 2 hours. A summer home on Brown Shores near Sackets Harbor was heavily damaged by a fallen large tree.	34. OKLAHOM	A 03
Many parts of Western and Central New York	28 1 2 5 0 Wind Strong winds raked the area. Numerous trees and power lines were downed. Ten thousand homes or more were without electricity for various lengths of time. Quite a few homes and commercial buildings were damaged. In the town of Bergen, Genesee County, a 7-year old boy was killed when a huge tree fell and struck him.	Fairview, Major County	A downburst caused winds of 70 to 100 mph causing extensive damage. A small tornado was associated with this storm but damage was caused by the downburst. One police officer suffered a broken leg. Damage was estimated at \$1 million dollars. 04 1100CST 0 0 3 0 Wind Strong winds caused a church under construction to collapse. Damange was \$3,000 dollars.
	In Auburn, Cayuga County, powerful wind gusts toppled trees and blew out window glass. In Niagara Falls and Lockport, many streets were blocked by downed trees. A few cars were smashed. Power lines were cut.	Hulen, Caddo County	06 morning 0 0 4 0 Lightning Lightning caused an oil storage tank to burn with damages about \$30,000 dollars.
	In Le Roy, Genesee County, on Route 19, high winds blew a camper unit off the back of a pickup truck into an oncoming car on Route 19. Two persons were injured.	Sayre, Beckham County	06 1850CST 0 0 ? 0 Wind Winds of 60 mph caused a tied down airplane to be overturned,
31 NORTH CA	ROLINA	Edmond, Oklahoma County	Ob evening 0 0 3 0 Lightning Lightning caused \$1,000 damage to a home.
Gold Mine, Macon County	A severe thunderstorm producing strong winds moved through this small community northwest of Highlands during the early morning hours. Many large trees were uprooted over a three-quarter mile path by the straight-line winds which also damaged the roots of several buildings and barns. No damage estimates were available.	Norman, Cleveland County Edmond, Oklahowa County	06 2140CST 0 0 5 0 Lightning Lightning caused a home to burn. Damages set at \$140,000 dollars. 06 2315CST 0 2 0 0 Lightning
Rowan County	13 1430EST 0 1 4 0 Thunderstorm Winds Strong winds associated with a severe thunderstorm moving through the eastern part of the county downed numerous trees and powerlines interrupting utility service to over a hundred customers. Two	Marietta, Love County	Lightning struck a power line which was being worked on by two men. O7 2332CST O O ? ? Hail 3/4 inch hail fell just west of town.
	separate automobile accidents near Salisbury, which were caused by tree limbs falling into the roads, resulted in one serious injury and \$8,000 in damages. Near the community of Liberty a mobile home sustained \$2,000 in damages when strong winds ripped off a patio cover.	Washington, McClain County	11 1112CST 0 0 ? ? Hail Golfbail sized hail fell.
32 NORTH DA	AKOTA MONE REPORTED	Ada, Pontotoc County	11 1420CST 1 14 0 0 Lightning Lightning struck a football field, killing one player and injuring 14 others. The player expired on the 16th.
		Clayton, Pushmataha County	17 Morning 0 0 4 0 Lightning Lightning caused a home to burn with damages of \$25,000 to \$30,000 dollars.

	н	Į		NO. OF	ESTIMA					ıj	E		NO.		ESTIM		
PLACE	LOCA	OF PATH ES)	PATH DS)	PERSONS	1.7	AGE	CHARACTER OF	PLACE		LOCA	OF PATH	F PATH	PER	SONS	DAM >-	AGE	CHARACTER OF
	DATE TIME - LOCAL STANDARD	LENGTH OF (MILES)	WIDTH OF PATH (YARDS)	KILLED	PROPERTY	CROPS	STORM		DATE	TIME - LOCAL STANDARD	LENGTH OF (MILES)	WIDTH OF PATH (YARDS)	KILLED	INJURED	PROPERTY	CROPS	STORM
OKLAHO	MA							OKLAH	OMA	•							
Southwest and Central Oklahoma	17 thru 21		:	1 0	7	8	Flooding, Flash Flooding	Purcell, McClain County	20	morning			n	0	5	6	Flash Flooding
	Heavy rainfal "Tico "caus of 10 to 15 i inches occur were desinate including; Co totton, Garví Pottowatomie, and Tillman. demage including Seminole, and astimated at million for p	ed exten nches oc- ing in G d disast ddo, Can n, Grady Jackson Seven ot- ed Greex Washita \$6.5 mil	sive dar curred vady con er areas adian, (, Logan , Jeffer ther coun , Harmon , Total	mage. So with a reunty. So by Proclevelar, McClarson, Loven, Lovendamager prival	torm tot maxima d ixteen d esident nd, Come in, Okla incoln, eceiving , Okfusi s are be te, \$10.	tal amo of 16.9 countie Reagar anche, ahoma, Stephe g heavy kee, eing .2	ounts 55 ss s		Heafflo	wy rains od from banks w t side o highway a funnel ifter acr out roa x 70) d	of 12 Washing ith flo f 135. 39 with which oss sou ds, and own a r ack was mainli	ton to od wate The flo the un caused thern s washed avine. washed ne to I	Purce rs mon od wan derpan the wan ection 4 to A hall out urcel	ll. T ving ters ss (I ater ns of 6 la f mil just l was ell t	the cre southwathen m 356hyw to be Purce arge mo e of t southe comple o sand	ek was ward on hoved e r 39) a deeper til. The bile ha he San wast of etely itary l	eek to out of the astward cting and e water omes ta Fe Purcell. washed agoon
Mustang, Canadian County	18 0930CST Lightning str setting it or	uck an o	il well	0 0 and st 1d 4,40	orage ba	attery	Lightning	Walters,	Put	be dumpe cell beg					d rese		
Elgin,	19 1803CST	2.6	50	0 0	5	?	Tornado(F2)	Cotton County		fall of							ek to
Commenche County	A tornado set	down 1.	2 miles	north	and 1.3	miles		Cueb-1-	1	od a 2 bl	ock are	a on th	e nor	th si	de of	town.	Flash Flooding
	and damaging Damages estimates	other ho	mes, tr	ailers,	and out	t buile	lings.	Guthrie, Logan County		m-ziam Cottonw	ood Cre	ek res	•	•	•	-	•
Cacha, Lewton, Comanche County	18 PM-20 AM Heavy rainfa to flood por same rainfal Cache creeka of the 19th in Comanche	II of II tions of I caused which fi and morns	to 13 i Cache t flash f looded p ing of t	0 0 inches c the even looding ortions the 20th	6 caused W ning of g on Wol	7 West Ca 10/18/ If and into the stall	83, The East e night		29 were ever action can war war here as	6 feet a stern sec acuated, ross the s and truhed off drowned tween 210 sociated Guthrie	t 2301 tions of A report rapidly ucks of of the . A ris 0 and 2 with th	CST on of Guthr ted wal rising f of th car he e of al 200 CST	the 2 ie fo l of wate: wate: was he most ! which t wal	Oth. rcing water r was eets. oldin 5 fee h was 1 of	The cr 500 p 4 fee hing s One m g on t t occu- proba	eek fl ecople t deep everal an was o and erred ably Damag	ooded to be moved
Apache, Caddo County	19 night			0 0	5	7	Flash Flooding			lion.							
	Heavy rainfa to flood city quick nothing	of Apac	che. Rep	orts in	dicate	flood	hit so	Clinton, Custer County		0915CST ntning st ing abou	ruck a				4 side o	0 of Clin	Lightning
Jackson County	19 evening			0 0	5	6	Flooding		1		, .						
	Heavy rains of flooding by bed was washe a train.	the Salt	Fork of	the Re	d River	, A ra	ilroad	35 OREGON									
Norman, Lexington, Cleveland County	19PM-20AM			0 0	5	6	Flash Flooding	Tillamook	. 22				0	0	4	0	High Winds
cleveland county	Heavy rains of to flood sections flood portion	ions of	Norman	and Cho					Til app	lamook,	damagin	g an ae	rolif	t cyc	locran	ie. Th	ust south of e winds were which passed or
Midwest City, Oklahoma County	19PM-20AM			0 , 0	6	6	Flash Flooding										
	Heavy rains of Soldier Cree						d city.	36 PENNSYLV	ΔNI	Δ Fas	tern						
Chandler, Wellston, Lincoln County	19PM-20AM			0 0	6	5	Flash Flooding			·							
	Heavy rains Fork River as Wellston and	nd Bell (Cow Cree					Avoca, Luzerne County	Win	es. Shii	accompa ngles a	nd sidí	ng wer	re to	rn off	ooted house	Wind or broke off ma s, sheds were ay window. The
Shawnee, Dale, Pottawatomie County	19PM-20AM Rains of 12 to flood por		ches cau						win	ds swept tomers we	all th	e conte	nts o	it of	the d	isplay	area. Many
Ninnekah, Chickasha, Grady County	19PM-20AM		(0 0	7	6	Flash Flooding	36 PENNSYLV	ANI	A. We	stern	- NONE	REPO	RTED			
Graay County	Heavy rains of River to floo Ninnekah, Lin	d which	complete	ely sur	rounded	the ci	ty of			~, 	3,0,,,						
Lindsay, Garvin County	19PM-20AM			0 0	5	6	Flooding	37 RHODE ISL	.AN	D		— NONE	REPO	RTED			
yy	Heavy rains of River to add in turn flood	to the a	lready 1	flooding	g Washit	ta Rive		38 SOUTH CAI	ROLI	NA							
								Aiken, Aiken County		0200ES1	r 0	0	0	0	4	0	Lightning
					,				An and	area of t central rage shed	hunder:	Carolin	a. Li	ghtni	ing set	ta la	

PLACE	LOCAL	PATH ATH	l NO	. OF	1 cerus												
PLACE	1 40 1	\$ \ \ \		RSONS		ATED†	GURIOTER			OCAL.	РАТН	Ę_	NO. PERS		ESTIMA DAMA		S
	DATE TIME - LOCAL STANDARD	LENGTH OF PATI (MILES) WIDTH OF PATH (YARDS)	KILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM	PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF I	WIDTH OF PATH (YARDS)	KILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM
39 SOUTH DAK	OTA			•				TEXAS, N	Vor	thern		•			•		
Faulk County	01 0302CST		0	0	0	2	Lightning	Eastland County	8	1850CST			0	0	?	?	Hail
	A lightning re	lated fire bu	rned	four	teen ha	y bale	s just northwest		Dep	artment of ering the	Publi ground	c Safet in Cis	y troo	pers	report	ed 3/4	inch hail
·								North Texas	20 24	Early AM Evening	1		0	0	6	?	Flooding
40 TENNESSEE									The	remnants							rd across
Bradley, County Ten Mile Commun-	12 2313cst High winds Cleveland a 12 2315cst	downed a for according to	o the	е Ро 4	lice T	epart	High wind ment. High wind		amo Cou Thi inc	unts of 5 nties, wit s rain bro	to 7°i th less ought t Quana	nches w er amou otals f h area	ere co nts ac or the of Foa	mmon ross prev	in Har the re vious 4	deman st of days	and Wilbarger North Texas. to near 12 ng swollen
ity, Meigs County	One double- completely received mi "Ten Mile C Decatur alc	destroyed nor damage Community"	while when which	e on n hi h is	e conv gh win : 12 mi	ids af .les n	fected the ortheast of		Kno:	erous road x, and Wil of the 20	barger	closed Counti	due t es bef	o hig ore t	ph wate the rai	r in H n ende	dardeman, Foard, ed on the even-
	straight tr Civil Defen tied down. mobile home	ack about nse officia A man was sustainin	ut 500 yards long according to levials. The mobile home was not ras trapped in the rubble of the hing head and back injuries. The the mobile home including a blown about 50 feet from the leri injuries were only minor. H						bet 24t	eral days ween Burkb	and wa urnett ecord	s conce and Ga was set	ntrate inesvi as th	d mai lle. e riv	nly al On the er cre	ong the e ever	for the next be Red River ning of the ut 37 feet at
·	three-year- mobile home number of t	old were be, but thei crees in the	lown r in	abo juri	ut 50 es wer	feet e onl wned.	from the y minor. A		Tho	usands of	acres	of crop farm bu	land w ilding	ere f	looded		the river. In were lost, along
Near Kingston, Roane County	County. A	caused pro gs Boat Doc 28-foot po	k ou ntoo	t of n bo	Kings	t ston b s lift	High wind out near Meigs ed out of the When the boat	41 TEXAS, Sou	it he	:rn							
	landed, it of the boat	began a ch dock. Se of to the p	ain . vera	reac 1 ot	tion wher bo	vhich pats w	collapsed part vere damaged ant was torn	Calhoun County	6	1005CST	el was	reporte	0	0 he Si	0 heriff		Funnel
,								Val Verde County	8	2123CST		,	0	0	2		Tstm Winds
	3 1650CST Thunderstorm	school. One	e bui	1ding	was co	mplete	Wind with the heaviest ly destroyed, as		Str but Ami ove	red eastwar cong gusts were only istad Dam, er the city isured at	rd, pro were n y in th the gu y of De 72 mph	ducing oted in se 30 to sts bec l Rio a struck	high was the second to the sec	torm h rai rong CST, in A	and ve from a nge. A er, and straig FB on t	ery he about : As it : I just ght-li the ea	Verde County avy rains. 2110CST onward, noved across as it crossed ne winds st side of the d vegetation.
	extensive dam	nage along wit trailer rigs ere were no re	th sev s were eporte	veral e blo ed in	over-t wn over	urned on th	uses sustained mobile homes. e highway near erty damage	Maverick, Uvalde Counties	8 Str	2240CST	from a	sever	0 thund	0 lerst	4 orm cau	4 Jsed W	Tstm Winds
	6 1600CST- 1630CST		0	0	4	?	Wind		50 the	mph or grees	eastwar eater. oved so	very butheast	s the neavy n	city ain ls es	. Wind accompa timated	ds wer anied dat n	e Pass as the e estimated at the storm. As ear 50 mph gnificant and
	Stamford in t	torm winds da the northern p	amageo part o	a roo of Jo	nes Cou	downed inty.	power lines near			maging win	ds were						
Hamilton County	Farm equipmen damage.	er Carlton in it inside the	nort! buil	hern dings	Hamilto also s	n Coun auffere	ty at 2040CST. d extensive	Burnett County	non sou the Cou	rth-south utheastwar storms p unty. The	thunder across d at ne roduced runof:	South ear 30 d generations	Central mph. al 2 to ufficio	Tex in sp 3 i	as and ite of nch ra o caus	a cold were this ins ac e Camp	front aligned
	Two miles sout the winds. A roofs in the	accompanying (y damaged by d in damaging		re	ported nea	rly 6	feet de	ер аст	oss p	ortion	s of t	
Bell County	mately 1/2 mi Bell County.	ile wide and 2 Numerous hou	2 mile uses,	es lo mobi	ng near le home	Troy s, bar	ns, and out-		the a : tre fat sl:	e creek by family, th ee, where ther, atte ipped and	the rate mother she clampting lost h	apidly er was ung for to car is hold	rising able to a very ry the on the	wate wad lon two chi	r. Of e thro g time small 1dren.	the f ugh th , unti childr The	our passengers, e water to a small l rescued. The en to safety, were swept away
Tarrant County	buildings sus 8 0300CST	stained damage	e dur O	i n g t			m. Flooding		wa	s rescued.	Both	adults	were	urow hospi	talize	d with	ther eventually injuries.
	Heavy rains of separate area	as of Fort Wo	rth c	aused	local	floodi	ing.	Burnett County	Ha of th	Public Sa at produce	e of g fety i	n north hail wa	ern Bu s part	rnett of a	Count line	hrough y. Th from I	Hailstorm the Department the thunderstorm lano to Junction
	were pushed t several house	together by tl	he fa	st_ru	ın-off.	In ac	ditional,	Brazoria, Fort Bend,		ong a cold 1700CST		that w	as mov 0		o the		ast at 30 mph.
Calaban County	link fence we	rant sustaine	d wate	er da the	amage.	A driv	reway and chain	Matagorda, Wharton Counties	S1 fo	ow-moving ur-county er portion	thunde area. is of t	Rain b he area	egan n by 17	ear 1 00CST	ery he 500CST	avy ra with	in across the 3-inch rainfall
Calahan County	8 1750CST Department of		u ty tr	0 ooper	f rs repor	rted 1	Hail to 1-1/2 inch		In wi F1 an	Wharton C th the Bol ooding for d numerous hools were	County, ling an reed th bridg	rainfa d Louis e evacu es and d in Bo	ll of e area ation roads ling,	up to s bei of so were El Ca	22 in ing the ime hom impass impo an	ches we hardenes in table.	as reported,

		Γ	-	η-		1		_				1		_	1	1		1		-	OCTOBER 19
	CAL	PATH	Ę	PEI	O. OF RSONS		TIMATED! DAMAGE	_				.	CAL	PATH	Ŧ		D. OF RSON		MAT MAC		
PLACE	DATE TIME - LOCAL STANDARD	LENGTH OF (MILES)	WIDTH OF PAT (YARDS)	KILLED	INJURED	PROPERTY	CROPS		CHARACTER OF STORM	PLACE	DATE		TIME - LOCAL STANDARD	LENGTH OF	WIDTH OF PATH	KILLED	INJURED	PROPERTY		CROPS	CHARACTER OF STORM
TEXAS,	Southern	•								—— TEXAS, V	Ves	ter	n								
Jackson, Victoria	17 0515CST			0	0		? ?	Fla	sh Flooding	Brewster County	08	15				0	0	?		0	Flash Flood
Counties	General rains nighttime per caused no ser rain began to over portions accumulations fallen near I the night and Jackson Count	iod ov ious f fall. of th had t nez, a	er Jac loodin By 0 e two aken p s a to ng per	kson : g. H 515CS count lace. tal o iod.	and Vi owever T, fla ies, a The f 8 in Highw	lcto r, a ash as a hea nche ay	ria Coun bout 030 flooding dditiona viest ra s was re 59 flood	nties, DOCST, g had al 2 t ainfal ecorde	, but had , additional developed to 3 inch .1 had ed during est inside	Anton, Hockley County	Alp run cre ont wat	sh fine off eks o hi	the and old and and and ighway:	ount osing royon	of rais of in were	n exce tersec overfl Wate	eded tion owin or wa ot c	4 incomes and against and against and against	hes unde cari	lea rpas ying feet	ty locations. In ding to very rap ses. Normally d rocks and debri- in some low
Matagorda County	17 0745CST			0	0		? ?	Fla	sh Flooding		One	and	l one-l	nalf	inch ha	il fel	l in	Antor	. :	No da	mage reported.
	Flooding rede period as thu 0500CST and 0 isolated 17 i evacuated due	nderst 900CST nch am	orms p Gen ount	roduc eral Seve	ed add 6 to 8 ral fa	diti B in amil	onal rai ch rains ies in (infall s fell Clemvi	between with one (11e were	Littlefield, Lamb County Wolfforth,	Gol	fba:		e d ha	il fell	0 . in Li					Hail damage was Wind
Val Verde County	20 0210CST	f U., **	tama '	0	0		5 ?		sh Flooding	Lubbock County	Sti		thund	ersto	rm wind	to 60) mpt	h hit V	, Volf	fort	. No damage
	The remains o into Central southeastward	Texas,	and,	in co	njunct	ion	with a	cold	front moving	Lubbock,	16	2	214CST			0	(0 ()	0	Wind
	Val Verde Cou 0100CST and 0 Creek in Del	nty re 200CST Rio ve	ceived . Flas ry Shor	betwo sh flo rtly a	een 1 ooding afterw	and restard	3 inche sulted a Porti	s of long lons o	rain between San Felipe If the	Lubbock County			and g noted		wind to	64 ող	oh hi	it the	Lub	bock	Airport. No
	adjacent area 10-foot rise lost, floodin people had to	report	ed in (severe	the ci alon	reek.	A1:	though n	no liv	es were	Lubbock and Surrounding Counties	20	tw	early o days			0		0 8	3	0	Flood and Flash Flood
	In addition t wind gusts of Rio as the st tore off a pa No one was in	o the oup to orm system of signification.	damage 72 mpl stem mo the roo Other	cause h were oved r of of r mine	e reco northe a dor or dam	rde ast mit mage	d at Lau across ory, col was rep	ghlin the a llapsi orted	AFB near Del rea. The wind ng one wall. to homes and		arc enc and Ser	ound ded d co vera	Lubbo early tton h l rain inch r	ck. on th ad be fall ain m	The rai e 20th. en ruin station ark. O	in star Afte ned. ns, inc Others	rted er it elud: were	on the t was a ing Lul e Brown	e ev	ening over, k, re ld as	y other location of the 18th and much property ached or surpass d Paducah. Many
Edwards, Kinney	vehicles due	to the	high v	o Dnir	around	the	e Del Ri ? ?		sh Flooding				statio eriod			amoun	ts be	etween	5 t	o 7 i	nches during th
Counties	The heavy rai into Edwards and increased accumulations area with iso	and Kin rapid of 2	nney Co Ly fron to 3 in	d with ountie m 2330 nches	h Hurr es. DCST t were	The o O	ne Tico rains b 030CST. orted ov	moved egan Gene	eastward near 2300CST		Lul cla dra	bboc osed owne	k forc many d many	ed th stree cars	e evacu	ation lled p oding	of : laya in B	reside: lakes rownfi	nts , fl	in a	flood waters in nursing home, many homes and d similar proble
Bee, San Patricio Counties	20 1930CST Slow-moving,							rainf			ex	tens	ive da	mage.	Much	of the	e co	tton t	hat	was .	ains suffered eft after an farmers.
	between 10 an County, and S after noon CS developed abo several hours	inton, Fand o ut 1930	in Sar continu	n Pati ued th	ricio Prough	Cour 150	nty. Th	e rai Flood	n began just ing				lood w uth Pl		o down	as one	e of	the b	igge	st 1r	the history of
41 TEXAS, We	-4									42 UTAH —					NO	NE REF	ORTE	ED			
Midland, Midland	02 1537CST			0	0		? 0	Win	nd	43 VERMONT					NOI	NE REP	ORTE	.D			
County		nd Cou ely th by st	nty nea e same rong w	ar the time inds	e inte , a si	erse ign	ction of at a use	f road 2d car		44 VIRGINIA											
Childress,	02 1713CST			0	0		0 0	Wir	nd	Statewide	Se	vere	thund	ierst	vening orms su	0 rged a	cros	0 6 s the	stat	е. л	Wind, Rain sinly in the are
Childress County	Thunderstorm	wind t	o 58 m	ph in	Child	ires	s produc	ced no	known damage.		na na	twee	n the	Blue ich o	Ridge i f the d	Mounta amage	ins poin	and th	e co	asta ikel	l plain. The ihood of a famil
Lubbock, Lubbock County	06 Morning			0	0		5 0	Hai	1 6 Wind		fi	ed	these	are :	listed	in the	fo1	lowing	Sun	mary	were also veri associated wi
	A strong thun accompanied b caused much d center. Hous and one store	y high amage e roof	wind, to seve s were	in the eral be dama	he Cit houses ged, s	ty o	f Lubboo d to a l	ck. I local	This combination shopping		Th wi an 2P in	e ac nds d pr M an the	tivity of up operty d 3PM. Lynch	firs to 70 dama At a	st deve D mph winge occi nbout the area,	loped ere re urred he sam with	over port in P e ti home	the sed in atrick me con	outh the and side	west Roan Hen rabl	antic region. section, where oke areaand tr ry Counties betw damage occurre naged by falling
Fort Stockton, Pecos County	06 1700- 2000CST			0	0		? 0	Win			ti in ti	on, gs w ons.	power ere se A si	lines verel mila	were of y dama y dama r patte	downed ged or rn of	and tot dama	mobil ally d ge was	e ho estr	mes oyed tter	få house. In ad and small outbui in several loca- ed northeastward
	down and dama			seve	ral ho	omes	in Fort	t Stoc			th ag	roug e th	h the rough	centr Fauqu	ral cou lier, Pi	nties rince	culm Will	inatin iam, f	g ir airf	rati ax a	ner widespread d nd Loudon Counti 1 and 7PM.
Monahans, Ward County	06 1735CST	4	6.11	0	0			Hai			i										ove storm system
Alpine,	Golfball-size	d hail	tell (6 mil	es sou		of Monah 0 0			Richmond (22NW)	fo	llo						0 5			Tornado (F1)
Alpine, Brewster County	Radio Station damage report		in Alp:		-		-			(Commons (Count)	Sn Lo pr ar th	nall ouisa ocea n 18 ne p	torna Coun eded i th-Cen orch a	do to ty li nto L tury nd tr	uched d ne, dam ouisa C homep	lown br aging county seeling round	iefl an u wher off ing i	ly in C unoccup re, 15 f the r it. A p	iooci nied mini oof ecu	land trai utes and liar	County near the ler and store. I later, it struck badly damaging humming sound wa

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		CAL	PATH	Ŧ			STIMA DAM	ATED† AGE				CAL	PATH	Ę	NO. PERS		ESTIM. DAM		
PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF I	WIDTH OF PATH (YARDS)	KILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM	PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF F	WIDTH OF PATH (YARDS)	KILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM
VIRGINI	A		<u> </u>							49 ALASKA, N	orth	nern							
Albemarle County	13	1630EST	r		0	0	0	0	Funnel Aloft	Kotzebue Sound		1100 to			0	0	6	0	Coastal flood
	por	unnel clo t. The st apparent	orm wa	s accor	npanie	d by st	harl rong	ottsvi winds	lle-Albemarle Air- and heavy rain,		A vi		all sto						ing Strait to the west Pacific
Farmville (5E)	Thi Edw in cor whe hea	ard Count an east-n ner of No re it was vily dama	forme ty, dam northea ottoway obser nged a	maging besterly county ved by mobile	the to arms, direct y and one w home	dwelli tion th into so itness. and sto	Rice ngs roug uthw The rage	in no and tr h the estern re,the shed,	Tornado (FI) rtheastern Prince ees. It then moved extreme northwest Amelia County small tornado and caused around arby farm.		Typh off Chulthe a mo from Shis Shis feet	the coas west, an oderately the to 8 shmaref. shalik.	est, where to f Ja on Oct. d the sestrong feet at Coasta At Shis eline w	ich wen pan. A 5, a c outhwes westerl Kotzeb 1 flood hmaref,	t extracted to the control of the co	time time ont time of d pr curr ldin both	pical ow was swept flow unstab obably ed at g was sides	well over to le air more Shishm destro of th	moved northeast into the eastern octzebue Sound from the area shifted to. Sea level rose than this at aref, Kotzebue and yed, and up to 50 e island. At
Charlotte County	A si	munity, w theastwar	rathe here m	inor da farmst	nse to amage tead n	was rep ear Key	truck orted svill	k in ti d. It : le. At	Tornado (F2) he Drakes Branch continued east- this location roots, other trees		fami were just	iliies ev e evacuat t over \$5	acuated ed from	from to seasid	he are e cabi eak wi	a. ins.	At Shé Total t Kotz	shalik damag ebue w	oded, and several , several families e was estimated at as 47 miles an hou
	wer clu In	e snapped ding a ne addition.	l off a w trac , a sec	nd ever tor that tion of	ry veh it was f the	icle on carrie chimney	the d 50	farm '	was damagedin- into the field. hrough the farm-	Esstern Arctic Coast	07	1800- 0600 AST westerly		hich su	0 rged c	0 ver	? Kotzeb	0 ue Sou	High wind nd Oct. 5 swept
Fauquier County	13 Thr	these app	cloud	is were	0 seen	0 in the	vici	nity o	Funnels Aloft f Warrenton. One the report		the wind	e brief b 6th (les 1 at Bart	lizzard s than er Isla	condit 2 hours nd was	ions a), acc west a	t Ba compa it 58	rter I nied b knots	sland y high . No	rengthened. There on the evening of winds. The peak high wind or was reported.
Warrenton (mr)	13 App eno	lows: 1700EST arently d ugh to th	one of ne grou	the about and to	ove-me cut a	ntioned 500-600	fun	nels a	Tornado (FO) loft reached close h through a wooded	Brooks Range	culp	ninated i	n an av	alanche	at Ch	anda	lar Ca	earli	Avalanche er in the month the Pipeline
Lake of the Woods	Tor alc des mot	ing the we troyed, a piles were a roof blo	erved best side and a description	de of t dozen o ck by d fand m	east the lab thers ebris anv bo	e. Thro damaged the ro ats we	ole, ee ho d. In ecrea re to	moved mes we addit tion o	Tornado (F2) northeastward ere almost totally cion, several auto- center had most of mm their moorings	Bering Strait	haul aval It v	l road, o lanche wa vas evide	n Oct. s repor	B. The ted to dry sno	camp be 6 f w aval	is j eet anch	ust so deep a e. Da	uth of nd 20 mages	Atigun Pass. The to 30 yards wide. were ilmited to the morning of Strong winds and
Quantico (5S)	13 An	1815E5	T ss near	r the c e Potom	C ommun ac Ri	0 ity of ' /er. Tw	0 vii dev	0 rater 1	Waterspouts reported seeing were small, but	Berring Stratt	A 1 the	morning	of Oct	. 8, an	d reac	ed ti	hrough a poin:	the w	heavy seas estern Aleutians o west of St. ief period of
Fairfax County	13	1855EST	r shor	rt narr	ow 0	0			Tornado (FO) ity area.		sou lig to	theast ga hter sou 12 feet	ales re: theast (on O	sulted winds, ct. 9.	over B but co A tug	erin ntim boa	g Stratued hea t, the	t on ivy se. "Mukt	Oct. 8, followed b as estimated up uk", 50 to 60 feet Little Diomede
Falls Church	A to	aged on c	truck f one str uilding	reet, ti js were	rucks damag	where m	ertu	homes rned,	Tornado (F2) were heavily and several other moved northeast-	Eastern Interior	Isl and	and, in l	Bering : tion ca	Strait, used th	on th	e moi	rning o	f Oct	. 8. Heavy seas 9. All hands got Heavy snow over
	'										A b	road, ac	tive we	ather f	ront a	head	of a	large .	higher terrain low in the Bering
2 East of Cheney (Spokane County)		1630 PST	0.5	50	0	0	4	0	Tornado (Fl)		fro was ele the	m the west not hear various ; Taylor	st on 0 vy (som general and Ste	ct. 9. e of it ly exce ese Hig	While melte eded 6 hways	sno d), incl were	wfall snowfa hes '	in the ll in The hi I to t	oss the Interior Interior valleys the higher gher elevations of raffic by the
	shed	rnado ble land blew onal Weat	w down	power	lines.	The 1	all t corna	rees, do was	damaged a tool confirmed by the	Brooks Range		evening		, due t	o the	neav;	y snow. 2	0	Avalanche
46 WEST VIRG	INIA	1 ——		— NONE	E REPO	RTED					in jus on 75 wer	the moun st south the even feet lon	tains, of Atig ing of g, acco	culmina un Pass Oct. 16 rding t	ted in , on t . The o high	an he T ava way	avalan rans-A lanche departi	he ne Laska l was l ment r	and strong winds ar Chandalar Camp, Pipeline haul road O feet deep and eports. Damages was cleared in a
47 WISCONSIN	ı																		
Wausau, Marathon County	05	1640CST		in unan	0 Dundad	0 TV ant	3		Electrical	49 ALASKA, S									
	exp	nuning st loded a 3 tion of a	foot	opening	g in t	he nort	hwes	t		Southwest		0500- 0700B		a 1	0	?	5	0	High Wind
Berlin, Green Lake County	A whi whi a b spi	1930CST oman was le talkin urn on he ne when t y from th	injure ng on t er left the bol	the teld t ear a It knock	ephone nd che	k by li . She s ek and	uffe hurt	ing red her	Electrical		Ala at In str	Ita broug iska. Wi Bethel. the Beth ructures	ht high nds gus There el area sustain on its	winds ted to were un power ed roof back. T	to a 1 75 mph offici lines damag	arge at alr were je.	area Cape R eports downe A 40 f	of sou omanzo of st dand oot ho	Yukon-Kuskokwim thwestern f and to 68 mph ronger winds. a number of use trailer as also hit
48 WYOMING				— NONI	E REP(RTED				South Coast	A s and Yak	i seas to	orm in 30 fee n ocean	t off t -going	he sou tug pu	ither 111in	n Alas g two	kan co	High Wind & Seas nds to 70 mph ast near capsized with

		AL.	Ę	-		OF		MTED!			\sqcap	AL.	Ŧ	_	NO. 0		MATED!	
PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH	WIDTH OF PATH (YARDS)	XILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM	PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH	WIDTH OF PATH (YARDS)	PERSO	PROPERTY	CROPS	CHARACTE OF STORM
ALASI	KA, So	outhern	1	•							•							
South Central	31	1800- 2100 AST			0	?	3	0	Heavy Snow									
	to the	he Anchor	age are ing du	ea wit ring t	h 4 in he mor	ches	fallir	ng in o	nches of snow nly 2 hours. used numerous									
49 ALASKA, S	Southe	eastern	1															
Ketchikan Area	17-1	8			0	0	2	0	High Winds, Heavy Rain &									
	Bar		Winds g	ustin					Local Flooding of a small boat in power outages in									
Juneau Area	27	Ketciiikai	ii wica.		0	0	5	0	High Winds									
	late were flip buil blow	e evening downed, pped over dings, i m away.	hours one sm , a car	of Oc all p port	tober : lane a was c	27. M t June ollaps	Numero eau In sed, a	us tree ternati nd nume	au during the es and branches ional Airport was erous small out ll field, were									
50 HAWAII																		
Hawaii All Islands	15-2	20			0	0	4	0	Wind, surf									
	the on 1 north with the hower High beach and 45 North 100 to 1 to 100 to	Hawaiian the 20th thward. I 135 MPH state an ever, state surf arches of K near HandPH durin the Big I the other atted well center o	Chain bringir Six day sustain de movir alled to cound 15 alapana, Mauig the asland.	moving ben ys ear ined w ng rap o the feet a and i on t aftern Some dis on of the	g west eficia lier R rinds l idly t east o did m Kaimu he 15- oon ho local the 20	ward a l rain aymond ocated oward f the inor on the leth. urs of ly gue th.	as a was to dadouthe I Islam damage east Stroety withe I	weak tr the is been a ut 1000 (slands ads and e along t coast ong win 19th d inds al ishing 17th to	al portion of opical depression lands from Maui powerful hurricane miles east of . Raymond, weakened rapidly. the black sands of the Big Island ds gusting near id minor damage so occurred vessel Crescent the north of seas and 60 knot									
Hawaii	26	Evening			0	0	3	0	Rain									
	the bloo	Big Isla	nd caus Ways.	sed se This	veral rain a	large ccomp	rock anied	slides the pa	Hamakua coast of and temporarily ssage of the e.									
51 PUERTO F	RICO –			NON	NE REPO	ORTED												
52 VIRGIN IS	SLANI	os —	_	— NON	IE REPO	RTED												
53 PACIFIC —				— NON	E REPO	RTED												

		то	RNAD	OE\$			HAIL	STOR	MS		WINDS	TORM	s		LIGH	TNING	;		FLOC	DING		@HEA	VY SN ND BL	OWST	ORMS RDS		ICE S	TORM	3	۰	ALL	отні	:R
STATE	K	ļ	Sī.	ES	ĞĒ	y.	ES	†DA	MAGE	S	ES	†DA!	/AGE	s	ES	†DAI	/AGE	s	SE	†DAN	AGE	S.	SE	† DAI	MAGE	<u></u>	s	†DA	MAGE	.,	Si	†DAI	VAC
	NUMBER	DAYS	DEATHS	INJURIES	+ DAMAGE	DEATHS	INJURIES	PROP. ERTY	CROPS	DEATHS	INJURIES	PROP. ERTY	CROPS	DEATHS	INJURIES	PROP. ERTY	CROPS	DEATHS	INJURIES	PROP. ERTY	CROPS	DEATHS	INJURIES	PROP. ERTY	CROPS	DEATHS	INJURIES	PROP. ERTY	CROPS	DEATHS	INJURIES	PROP. ERTY	odon
Alabama Arizona Arkansas California Colorado								4				4	3			5																	
Connecticut Delaware Florida Georgia Idaho	1	1		6	5							4 5			13	5																	
Illinois Indiana Iowa Kansas Kentucky								2				2			1	3 5				4 2													
Louisiana Maine Maryland & DC Massachusetts Michigan	1	1			4					1	16 1	3				4																	
Minnesota Mississiopi Missouri Montana Nebraska								6	6			6	5		?	?											í						
Nevada New Hampshire New Jersey New Mexico New York										1	2	5				5				7 4	7												
North Carolina North Dakota Ohio Oklahoma Oregon	2	2			5			?	?		1 1 1	5		1	16	5		2		7	8												
Pennsylvania Rhode Island South Carolina South Dakota Tennessee							i i		Ē		4	4				4	2																
Texas Utah Vermont Virginia Washington	6 1	1		6	6 4			4	5			6	4					2	2	8	8											4	
West Virginia Wisconsin Wyoming			ļ												1	3																	
Alaska Hawaii Pacific Puerto Rico Virgin Islands											?	5 3								6			?	3						8	1	6 4	
CORR	EC	П	0	NS																													
SEPTEMBER 1983 South Carolina	-			_						_		 		2	3	_												-	-				-
LATE	P	30	OI	R II	3_	•	ĺ																										
JULY 1983																																	
Louisiana Oregon	+-				F	-	-	?		F		7	?	2	1	5				?	?			-			-	‡=	Ι				F
Texas	4	3		2	5	Γ	Ī	?	1			?	?			ΓŤ		1		?	5						\top	1	1	T			Г

LATE REPORTS

LATE REPORTS

## COURT DAKOTA ### Part DAKOTA ### Pa	PLACE	TIME - LOCAL STANDARD LENGTH OF PATH (MILES) WIDTH OF PATH (YARDS) CROPS	DATE TIME - LOCAL STANDARD STANDARD LENGTH OF PATH ('ARROS) WIDTH OF PATH ('ARROS) WIDTH OF PATH ('ARROS) CROPS CROPS
Amendment started and will and by pleasants in the time as the time. Comment			38 SOUTH CAROLINA
Displants Partial To Hillory The finest closed were reported over Lake fluctuation near the decignation forms and the property of the finest closed were reported by state police 6 wiles which closed control of fluctuations from the control of fluctuation forms and the control of fluctuation forms and the control of fluctuation fluctuations from the control of fluctuations from the closed of fluctuations from		Aman was struck and killed by lightning in the town of Pearl River. He was mowing grass on a tractor at the time. Ol 1605CST Hail Propriedly 1.75 inches in diameter was observed a short	Clarendon County Man on large metal trailer in open field loading cucumbers was struck by lightning and killed. Three people in the field helping load cucumbers
Street closed was reported by state poster & sizes such of concepts. Security Person Concepts	Tangipahoa Parish	was reported. 03 1510CST Funnel Clouds Two funnel clouds were reported over Lake Pontchartrain near the	41 TEXAS, Northern
Section Sect	Vermillion Parish	A funnel cloud was reported by state police 4 miles south of	Fannin County 01 1643CST- 0 0 3 ? Hail, Wind
Descript Parsish 30 100/CST 11 Lipitating Custon Parsish 12 00/CST 13 00/CST 14 Lipitating 15 00/CST 15 Lipitating 16 100/CST 17 Lipitating 17 Lipitating 18 100/CST 18 00/CST 18 00/CST	St. Landry Parish	Lightning struck a sawmill near Eunice starting a fire which caused	Thunderstorm winds estimated at 40 to 50 MPH and marble size hail struck northern Fannin County at 1643CST. Spotters near
Code Parish Ly 2010GT Sables Parish 20 LOCGES and Experiments and demaged a church is Surveyoric. Sables Parish 21 Locating States and demaged a church is Surveyoric. 22 NORTH DAKOTA 23 NORTH DAKOTA 24 NORTH DAKOTA 25 NORTH DAKOTA 26 NORTH DAKOTA 26 NORTH DAKOTA 27 NORTH DAKOTA 28 NORTH DAKOTA 28 NORTH DAKOTA 29 NORTH DAKOTA 29 NORTH DAKOTA 29 NORTH DAKOTA 29 NORTH DAKOTA 20	Iberia Parish	One youth was killed and a man injured in the northern portion of Toeria Parish by lightning. They were attempting to move a vehicle	CST, which uprooted trees and caused scattered property damage. Between 1715 and 1800CST, 2 inches of rain fell in Bonham, with some low-lying spots flooded for a brief time.
Lightning struck two oil storage tanks 5 miles morthwest of Yang causing both tanks to burn. No extinate of damage available. 32 NORTH DAKOTA JULY 1883 Solva (Golden Yalley County) 33 OREGON JILY 1993 Butte Valley Klassific County The Dalles. Wasco County Solva (County) Solve (Incompt) Solve (Incomp	Caddo Parish		Spotters reported 3/4 inch hail in northern sections of the
32 NORTH DAKOTA JULY 1983 Golva (Golder Valley County) 17 2130CST 0 0 5 5 Holl (Golder Valley County) 18 1 as large at golf balls danaged crops, danaged roofing and atiding, and broke windows. 35 OREGON JULY 1983 Butte Valley, Cascades, and Central Oregon Central Oregon Central Oregon Entral County 18 1 18 180STS 18 180STS 18 180STS 18 180STS 18 180STS 18 180STS Southers reported a funnel 3 miles morth of Abilene are 184SCST. He furnel received fint the persent cloud without fouthing down. An afterest entherstore moved into the Abilene are at 184SCST. Producing high winds and heavy rains. The Weather Service Office received 78 Hell winds at 182BCST, and 1.5 inches rain in the following 15 minutes. Fort Pharton received 5.5 inches was not inching and person of the Abilene are at 184SCST. In the furnel received first the person of the Abilene are at 184SCST. An aftered the following 15 minutes. Fort Pharton received 5.5 inches rain in the following 15 minutes. Fort Pharton received 5.5 inches rain in the following 15 minutes. Fort Pharton received 5.5 inches rain in the following 15 minutes. Fort Pharton received 5.5 inches rain in the following 15 minutes. Fort Pharton received 5.5 inches rain in the following 15 minutes. Fort Pharton received 5.5 inches rain in the following 15 minutes. Fort Pharton received 5.5 inches rain in the following 15 minutes. Fort Pharton received 5.5 inches rain in the following 15 minutes. Fort Pharton received 4.5 inches rain in the following 15 minutes in following 15 minutes and streets, with one woman being sweet to 3 minutes and streets. With one woman being sweet to 3 minutes in following 15 minutes and streets. With one woman being sweet to 3 minutes in following 15 minutes and streets. With one woman being sweet to 3 minutes in following 15 minutes and streets. With one woman being sweet to 3 minutes in following 15 minutes and streets. With one woman being sweet to 3 minutes in following 15 minutes in following 15 minutes in following 15 minutes in follow	Sabine Parish	Lightning struck two oil storage tanks 5 miles northwest of Many	Hardeman County 2030CST A thunderstorm, moving east along the Foard/Hardeman county line,
Solution State S	JULY 1983		2200CST Golfball size hail and 60 MPH winds struck the area 15 miles southwest of Vernon.
Softer reported a funnel 3 miles north of Abilene at 1545CST. The furnel receded into the parent cloud without touching down. Butte Valley, Klanath County The Dalles, Wasco County Willarette Valley, Cascades, and Central Oregon Deschutes River 16 1830PST 0 0 7 2 Lightning Intense electrical storms touched off fires and caused widespread power outages. Deschutes River 16 1830PST 0 0 7 0 Lightning, Flash Flood Intense electrical storms touched off fires and caused widespread power outages. Deschutes River 17 IlsoPST 0 0 7 0 Lightning, Flash Flood Intense electrical storms touched off fires and caused widespread power outages. Deschutes River 18 1830PST 0 0 7 0 Lightning, Flash Flood Lightning caused a malfunction in the Pelton Dam Control circuits, increasing the outflow from 4600 cfs to over 10,000 cfs, resulting in 8-10 foot trises for up to 24 miles down river. Flooded camping areas and damaged volicles were reported as well as some damage to boat docks just below the dam. Pilot Rock. Uratilla County An intense thunderstorm moved into the Abilene area at 160CST. The furnel receded into the Abilene area at 160CST. The furnel receded into the Abilene area at 160CST. The furnel receded into the Abilene area at 160CST. The furnel receded into the Abilene area at 160CST. The furnel receded into the Abilene area at 160CST. The furnel receded into the Abilene area at 160CST. The furnel receded into the Abilene area at 160CST. The furnel receded into the Abilene area at 160CST. The furnel receded into the Abilene area at 160CST. The furnel receded into the Abilene area at 160CST. The furnel subject of fire for the slow minds and haven values. For Phantom received 30 minds and heavy winds. An intense thunders for which winds at 1629CST, and 1,5 inches during the two hour period. Most of the fooding in the Blue Mountain food and despread power outages. See and and account of the Abilene area at 160CST. The furnel fooding his winds at 1629CST, and 1,5 inches during the two hour period. Most of the fooding hi	(Golden Valley	Hail as large as golf balls damaged crops, damaged roofing and	Sanger. Taylor County 15
Butte Valley, Klanath County The Dalles, Wasco County The Dalles, Wasco County Willamette Valley, Cascades, and Central Oregon Deschutes River 16 1830PST 10 0 ? Hailstorm Lightning caused a malfunction in the Pelton Dam control circuits, increasing the outflow from 4500 cfs to over 10,000 cfs, resulting in B-10 foot rises for up to 24 miles down river. Flooded camping areas and damaged webicles were reported as well as some damage to boat docks just below the dam. Pilot Rock, Uratilla County Lake County Madras, Jefferson Severe lightning storms ignited several brush and forest fires. Madras, Jefferson Severe lightning storms ignited several brush and forest fires. Madras, Jefferson Severe lightning storms ignited several brush and forest fires.			Spotters reported a funnel 3 miles north of Abilene at 1545CST. The funnel receded into the parent cloud without touching down.
Deschutes River 16	Klamath County The Dalles, Wasco County Willamette Valley, Cascades, and	7 1150PST 0 0 ? ? Windstorm 16- 0 0 ? ? Lightning 19 11ntense electrical storms touched off fires and caused widespread	received 78 MPH winds at 1629CST, and 1.5 inches rain in the following 15 minutes. Fort Phantom received 5.5 inches rain from the slow moving storm, with most of the area reporting 2 to 3 inches during the two hour period. Most of the flooding was in low-lying areas and streets, with one woman being swept away after leaving her stalled car. She was rescued downstream and was not injured. An Abilene Christian University auditorium sustained \$10,000 in damages after waters flooded the lower
Uratilla County Thunderstorms occurring in the Blue Mountain foothills dumped quarter-size hail, threshing out wheat fields east of Pilot Rock. Storms also caused power outages, some flash flooding and heavy winds. Lake County 30- 0 0 ? 2 Lightning 31 Severe lightning storms ignited several brush and forest fires. Madras, Jefferson County	Deschutes River	Flood Lightning caused a malfunction in the Pelton Dam control circuits, increasing the outflow from 4600 cfs to over 10,000 cfs, resulting in 8-10 foot rises for up to 24 miles down river. Flooded camping areas and damaged vehicles were	
31 Severe lightning storms ignited several brush and forest fires. Madras, Jefferson County Madras 1730PST 0 0 ? 6 Hailstorm		Thunderstorms occurring in the Blue Mountain foothills dumped quarter-size hail, threshing out wheat fields east of Pilot Rock. Storms also caused power outages, some flash flooding and heavy	
County	Lake County .	31	

CORRECTIONS

ſ			CAL	PATH	Ē	NO. OF ESTIMATED [†] PERSONS DAMAGE					CAL	PATH	Į.	NO. OF PERSONS		ESTIMATED ¹ DAMAGE			
	PLACE	DATE	ŤIME – LC STANDARD	LENGTH OF I	WIDTH OF PA (YARDS)	KILLED	PROPERTY	CROPS	CHARACTER OF STORM	PLACE	DATE	TIME - LC STANDARD	ENGTH OF (MILES)	(YARDS)	KILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM

PLACE	TIME - LOCAL STANDARD LENGTH OF PATH (MILES) WIDTH OF PATH (TARBS) CROPS PROPERTY CROPS CR	PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED KILLED	ions 1	TIMATED! DAMAGE	CHARACTER OF STORM
11 ILLINOIS JUNE 1983										
DELETE: WIND	in Central Sections from 1500 to 1645CST on June 14 (page 14).									
ADD: WIND AND FUNNELS	listed below:									
Northern and Central sections	14 1230 to 0 0 4 ? Wind and Funnels As thunderstorms came into the northern and central sections of Illinois, winds as high as 43 knots caused damage to tree limbs and power lines. A funnel was sighted in Woodstock, McHenry County at 1300. The powerful winds damaged several buildings in DeKalb County at 1322. A truck was turned around on Route 173 near Hebron, McHenry County, at 1344. Two funnels were sighted at 1446 on the south side of Chicago, Cook County. At 1630 the winds caused power failures in parts of Peoria, Peoria County.									
32 NORTH DA	LKOTA .									
TIME CHANGE:	The time for the following entry should be corrected as shown:									
Jamestown (Stutsman County)	24 2256CST 0 0 3 0 Hail Golfball sized hail broke windows on a grain elevator. (Time corrected from 2356CST)									

REFERENCE NOTES

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Storm damage categories are from

1 to 9 as follows:

Less than \$50 1

2 \$50 to \$500

3 \$500 to \$5,000

4 \$5,000 to \$50,000

5 \$50,000 to \$500,000

6 \$500,000 to \$5 Million

7 \$5 Million to \$50 Million

8 \$50 Million to \$500 Million

\$500 Million to \$5 Billion

Definition of Fujita Tornado Scale (F scale)

(FO) Gale tornado (40-72 mph): Light damage Some damage to chimneys; break branches off trees; push over shallow-rooted trees; damage sign boards.

(F1) Moderate tornado (73-112 mph): Moderate damage The lower limit (73 mph) is the beginning of

hurricane wind speed; peel surface off roofs; mobile homes pushed off foundations or oversturned; moving autos pushed off the roads.

(F2) Significant tornado (113-157 mph): Considerable damage Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light-object missiles generated.

(F3) Severe tornado (158-206 mph): Severe damage Roofs and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted; heavy cars lifted off ground and

(F4) Devastating tornado (207-260 mph): Devastating damage Well-constructed houses leveled; structure with weak foundation blown off some distance; cars thrown and large missiles generated.

(F5) Incredible tornado (261-318 mph): Incredible damage Strong frame houses lifted off foundations and

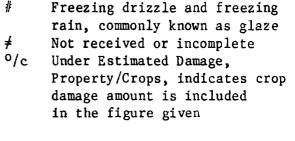
carried considerable distance to disintegrate; automobile-sized missiles fly through the air in excess of 100 m; trees debarked; incredible phenomena will occur.

(F6-F12) (319 mph to Mach 1, the speed of sound): The maximum wind speeds of tornadoes are not expected to reach the F6 wind speeds.

(F0+F1) Weak Tornado (F2+F3) Strong Tornado

(F4+F5) Violent Tornado

From J. Atmos. Sci., August 1981, p. 1517-1519

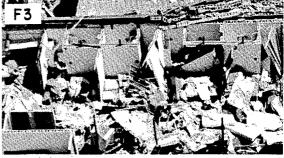


Miles instead of yards

Yards instead of miles

Includes heavy sleet storm









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